

We claim:

1 - A method of re-establishing a connection for a communication link, said communication link having a first portion in a first communication network, a second portion in a second communication network and an interface connecting said first portion to said portion, said first communication network having a first communication protocol and a first OAM protocol adapted to monitor integrity of said first portion, said second communication network having a second communication protocol and a second OAM protocol adapted to monitor integrity of said second portion, said method comprising:

utilizing said second OAM protocol to detect a failure in said second portion;

upon detection of said failure, identifying an alternate route for said second portion in said second communication network, said alternate route being able to complete said second portion of said communication link from said interface; and

for said communication link, at said interface replacing said second portion with said alternate route.

2. A method of re-establishing a connection for a communication link as claimed in claim 1 wherein:

said first communication network is an ATM network;

said first OAM protocol is one of PNNI and ATM OAM;

said second communication network is a MPLS network; and

said second OAM protocol is MPLS OAM.

3. A method of re-establishing a connection for a communication link as claimed in claim 2 wherein identifying an alternate route for said second portion in said second communication network is performed at said interface.
4. A method of re-establishing a connection for a communication link as claimed in claim 3 wherein utilizing said second OAM protocol to detect a failure in said second portion comprises monitoring said second portion for receipt of frames containing MPLS OAM information and debouncing said frames.
5. A method of re-establishing a connection for a communication link as claimed in claim 4 wherein for identifying an alternate route for said second portion in said second communication network, a list of alternate routes for said second portion is maintained and accessed to identify said alternate route.
6. A method of re-establishing a connection for a communication link as claimed in claim 5 wherein said first OAM protocol is adapted to detect failures in said second portion.
7. A method of re-establishing a connection for a communication link as claimed in claim 4 further comprising
- utilizing said second OAM protocol to detect clearance of said failure in said second portion;
- upon detection of said clearance of said failure, for said communication link, at said interface replacing said alternate route with said second portion.

8. A network node associated with a first communication network and a second communication network, said network node processing communications for a communication link having a first portion in said first communication network, a second portion in said second communication network and an interface between said first portion and said second portion at said network node, said first communication network having a first communication protocol and a first OAM protocol adapted to monitor integrity of said first portion, said second communication network having a second communication protocol and a second OAM protocol adapted to monitor integrity of said second portion, said network node comprising:

a first module adapted to detect a failure in said second portion utilizing said second OAM protocol;

a second module adapted to receive an indication of said failure and upon receipt of said indication, to identify an alternate route for said second portion in said second communication network, said alternate route being able to complete said second portion of said communication link from said interface; and

a third module adapted to receive an indication of said alternate route and to replace said second portion with said alternate route for said communication link.

9. A network node as claimed in claim 8 wherein:

said first communication network is an ATM network;

said first OAM protocol is one of PNNI and ATM OAM;

said second communication network is a MPLS network; and

said second OAM protocol is MPLS OAM.

10. A network node as claimed in claim 9 wherein

said first module utilizes said second OAM protocol to detect said failure in said second portion by monitoring said second portion for receipt of frames containing MPLS OAM information and said first module debounces said frames.

11. A network node as claimed in claim 10 wherein:

said second module further comprises a list of alternate routes for said second portion to identify said alternate route.

12. A network node as claimed in claim 11 wherein

said first module is adapted to use said second OAM protocol to detect clearance of said failure in said second portion; and

said third module is adapted to replace said alternate route with said second portion for said communication link upon detection of said clearance of said failure.